AMENDMENTS TO THE CLAIMS

1. (currently amended) A method for dispensing droplets of a liquid to a microsystem in the form of a disc ~~comprising~~ **having** a target area (TA^0I) in its surface **which comprises** ~~, said disc preferably being a microfluidic disc comprising a microchannel structure I with an inlet port that is equal to said target area, characterized by comprising~~ the steps of:

i)providing (1) said disc which has a triggering mark, ~~preferably in the circumference,~~ and (2) a dispenser arrangement comprising:

a) a spinner for rotating the disc around its axis,

b) a drop dispenser permitting dispensation of droplets **from a dispenser orifice of said drop dispenser to the target area TA^0I** ~~to inlet port I~~,

c) a fixed trigger position outside the disc, and

d) a controller which is capable of triggering **a dispensing signal, which causes** ~~the~~ dispensation of ~~a droplet~~ **one or more droplets from said dispenser orifice** into **the target area** (TA^0I) as a function of the triggering mark passing the trigger position;

ii) placing the disc in the spinner and programming the controller with values for **one or more** dispensing parameters

that will give dispensation of the droplets to **the target area** TA^0I; **and**

iii) dispensing the droplets **while spinning the disc**.

2. (currently amended) The method of claim 1, **wherein** ~~characterized in that~~ said parameters are selected ~~amongst~~ **from** the group consisting of

(a) speed of rotation of the disc (angular velocity ϖ),

(b) the revolutions under which dispensation is to take place and/or the frequency f' of droplet dispensation to **the** target area ~~TA I~~ **TA^0I**,

(c) shape of the dispensing signal~~, for instance amplitude, and/or frequency f of dispensing pulses etc~~,

(d) delay T_{elec} between the signal from the trigger position and the actual dispensing of a droplet,

(e) distance h between the dispenser orifice and the disc, and

(f) radial movement and/or radial position of the dispenser orifice.

3. (cancelled)

4. (currently amended) The method of claim **2** ~~3, characterized in~~ **wherein**

i) the liquid comprises a gradient with respect to at least one of its constituents; and

ii) that the value for at least one of the parameters (a), (c), (d), and (e) is adjusted during the dispensation to compensate for the change in velocity of the droplets which possibly is caused by the gradient~~, said adjustment preferably being handled by the controller~~.

5. (currently amended) The method of claim 1, ~~characterized in that~~ **wherein** the disc is a microfluidic disc **having a microchannel structure I comprising**

a) an inlet port that is equal to the target area TA^0I, and

b) ~~that said microchannel structure I comprises~~ a microcavity positioned downstream to the **target area** TA^0I and used for carrying out a chemical or biological experiment.

6. (currently amended) The method of claim **5,** ~~1, characterized in that~~ **wherein** said liquid comprises a gradient which is defined as a change in salt concentration, kind of salt, pH, composition of solvents and/or some other component/components that interferes/interfere with an experiment which is carried out in the microcavity.

7. (currently amended) The method of claim 5_,_ ~~or 6,~~ ~~characterized in that~~ **wherein** the microcavity contains a separation media in **the** form of a porous bed~~, for instance a porous monolith or a packed bed of porous or non-porous particles that may be in beaded form and/or are monosized (monodispersed) or polysized (polydispersed)~~.

8. (currently amended) The method of claim 7, ~~characterized in that~~ **wherein** the method comprises

a) dispensing a liquid sample (liquid 1) to a sample inlet port of **said** microchannel structure I, which sample contains at least one substance that is capable of binding to the bed when passing through it, and

b) subsequently dispensing an eluent (liquid 2) to an inlet port **of said microchannel structure I** for releasing at least a portion of said **at least one** substance from the separation medium,

wherein at least one of said inlet ports ~~being~~ **is the target area** TA^0I_,_ ~~and~~ **at least one of** liquid 1 and~~/or~~ liquid 2 **is** ~~being~~ dispensed to **said target area** TA^0I as droplets through said drop dispenser by using said programmed values for the dispensing parameters**, and wherein liquid 1** ~~**being transported**~~ **is before liquid 2 through said microcacvity**.

9. (currently amended) The method of claim 8, ~~characterized~~ **wherein** in that the eluent comprises a gradient with respect to one of its constituents ~~and is said at least one liquid~~.

10. (currently amended) The method of claim 1, ~~characterized in that~~ **wherein**

a) the spinner is linked to an encoder which gives at least 10,000 grades per revolution, and

b) the time at which the dispensing signal is given is determined by the number of encoder grades between the triggering mark and the triggering position.

11. (currently amended) The method of claim 1, ~~characterized in that~~ **wherein** the time at which the dispensing signal is given is calculated from the speed of rotation (angular velocity) and the time at which the triggering mark passes the trigger position.

12. (currently amended) The method of claim 1, ~~characterized in that~~ **wherein** a piezo-driven actuator drives the dispenser which is actuated according to the dispensing signal.

13. (currently amended) The method of claim 1, ~~characterized in that~~ **wherein** the dispenser is a flow-through dispenser.

14. (currently amended) The method of claim 1, ~~characterized in that~~ **wherein** the disc comprises one, two or more additional target areas (TA^1I, TA^2I, TA^3I etc) which are at the same radial distance from the disc centre as **target area TA^0I** ~~inlet port I (TA^0I)~~.

15. (currently amended) The method of claim 14, ~~characterized in that~~ **wherein** the disc is a microfluid disc comprising two or more microchannel structures **which each comprises an inlet port which is a target area selected among the** ~~and having~~ target areas ~~(TA^0I, TA^2I, TA^3I etc) in form of inlet ports of said microchannel structures~~.

16. (currently amended) The method of claim 14 ~~or 15~~, ~~characterized in that~~ **wherein** the angular distances between the target areas ~~(TA^0I, TA^1I, TA^2I, TA^3I etc)~~ that are located next to each other are the same or different.

17. (currently amended) The method of claim 2 ~~16~~, ~~characterized in that~~ **wherein** the shape of the dispensing signal is programmed to comprise a number of pulses such that each droplet formed will correspond to a pulse and that the programmed values for the remaining parameters (a)-(f) will be such that for each dispensing signal at most one droplet per revolution will be dispensed into **each of said one or more** ~~a~~ target **areas** ~~area~~.

18. (currently amended) The method of claim 1, ~~characterized in that~~ **wherein**

a) the dispenser arrangement comprises an array of dispensers that are under control of the controller**; and**

b) said drop dispenser is one of said dispensers.

19. (currently amended) An arrangement **enabling dispensation of** ~~for dispensing liquids~~ droplets of a liquid to a microsystem in the form of a **spinning** disc comprising a target area (TA^0I) in its surface for the droplets, ~~said disc preferably being a microfluidic disc comprising a microchannel structure with an inlet port that corresponds to TA^0I, characterized in that~~ **wherein** the arrangement comprises:

a) a spinner for rotating the disc around its axis,

b) a drop dispenser permitting dispensation of droplets to **target area TA^0I from a dispenser orifice of said drop dispenser to target area** TA^0I,

c) a fixed trigger position positioned outside the disc and comprising a detector which is capable of detecting a triggering mark passing the trigger position when the disc is placed in **the** spinner and rotated, and

d) a controller which is capable of triggering **a dispensing signal for** the dispensation of a droplet into **target area** TA^0I

as a function of the triggering mark passing the trigger position.

20. (cancelled)

Please add the following new claims 21-27.

21. (new) The method of claim 1, wherein said disc is a microfluidic disc comprising a microchannel structure I with an inlet port that is equal to said target are.

22. (new) The method of claim 1, wherein said triggering mark is placed in the circumference of the disc.

23. (new) The method of claim 2, wherein said shape is amplitude, and/or frequency ***f′*** of dispensing pulses.

24. (new) The method of claim 4, wherein said adjustment is handled by the controller.

25. (new) The method of claim 7, wherein the porous bed is a porous monolith or a packed bed of porous or non-porous particles.

26. (new) The method of claim 25, wherein the particles are in beaded form and/or are monosized (monodispersed) or polysized (polydispersed).

27. (new) The arrangement of claim 19, wherein said disc is a microfluidic disc comprising a microchannel structure I with an inlet port that corresponds to target area TA^0I.